



# WASTEWATER DISCHARGE PERMIT

Permittee: Morton International, Inc. Industry No.:

20499000000

Address: 2000 West Street

MIL-026 11/5/1990

Cincinnati, Ohio 45215

Effective Date: 11/5/1990 Expiration Date: 11/5/1991

MSD Permit No.:

0 43213

Industrial Category: 2/3

METROPOLITAN SEWER DISTRICT

Hamilton County-Managed by the City of Cincinnati

In accordance with the provisions of Article XV, Rules and Regulations in the Metropolitan Sewer District of Greater Cincinnati, Hamilton County, Ohio (known hereinafter as "MSD"), the Permittee is authorized to discharge into the Wastewater Treatment System of MSD subject to the conditions set forth herein.

1600 Gest Street Cincinnati, Ohio 45204 13 244-5122 Issuance of this permit does not constitute expressed or implied approval or permission for a violation of any provision of MSD Rules and Regulations, nor does issuance constitute a waiver by the Department of Sewers, City of Cincinnati, or the Board of County Commissioners of Hamilton County, Ohio, of the right to seek any lawful remedy or penalty for any such violation.

Board of County Commissioners

Sandra S. Beckwith Steven J. Chabot Robert A. Taft, II In case the permit makes reference to, or includes in its terms, a plan for pretreating wastewater before its discharge into the Wastewater Treatment System, the issuance of the permit shall not constitute expressed or implied agreement or guarantee that the pretreatment facility constructed in accordance with said plan will operate as intended or in compliance with applicable MSD Rules and Regulations, or that the wastewater so pretreated will be acceptable for discharge to the Wastewater Treatment System.

City Manager

Scott Johnson

This permit may be modified by MSD, as required or authorized by MSD Rules and Regulations, or as required by the federal government or agencies thereof.

Director

homas A. Saygers, P.E.

Failure on the part of the Permittee to fulfill any of the specified conditions shall be sufficient cause for immediate revocation of this permit. This permit is further subject to termination upon thirty (30) days written notice to the Permittee by an authorized representative of MSD.

Violations of this permit are punishable by civil penalties of up to \$5,000 per violation and by criminal penalties of up to \$25,000 per violation or six months in prison or both.

Any assignment or transfer of this permit shall automatically make it void.

Superintendent

Division of Industrial Waste

Director,

#### PERMIT CONDITIONS

- 1.) The Permittee shall comply with the MSD Rules and Regulations or with federal regulations if more stringent. (Sections 204 and 402)\*
- 2.) The Permittee shall allow MSD Personnel access to premises for inspection or sampling related to conditions of this permit. (Sections 201, 1507 and 1508)
- 3.) The Permittee shall promptly report to MSD any changes in locations, industrial processes, discharges (quantity or quality), or chemical storage procedures. (Sections 1503 and 1506)
- 4.) The Permittee shall notify MSD immediately in the event of any accident, negligence, or other occurrence having a reasonable probability of causing a discharge to the public sewer system of any wastes or process wastewaters not authorized by this permit; notifications shall be made immediately by telephoning MSD at 244-5103, 8:00 A.M. to 4:30 P.M., Monday through Friday and 244-5500 at all other times, and shall include a description of the manner in which discharges in violation of this permit will be prevented including ceasing industrial discharges if necessary. Within 15 days of the date of any such occurrence, a detailed written statement describing the causes of the discharge and the measures being taken to prevent its future occurrence shall be submitted by Permittee to MSD, addressed to The Metropolitan Sewer District, Division of Industrial Waste, 1600 Gest Street, Cincinnati, Ohio 45204. (Sections 1525 and 1526)
- 5.) The Permittee shall discharge wastewater in conformance with the information contained in the permit application on file with MSD. (Section 1503)
- 6.) The Permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence, and any and all summaries thereof, relating to monitoring, sampling, and chemical analyses made by or in behalf of said Permittee. (Section 409)
- 7.) When the Permittee's monitoring of its wastewater discharge discloses a violation the Permittee must notify the Division of Industrial Waste of MSD within 24 hours and within 30 days shall submit to MSD the results of repeat sampling and analysis. The notification may be by telephone (244-5104); the submission should be in writing.
- 8.) If the Permittee monitors its wastewater for any pollutant more often than is required by this Wastewater Discharge Permit, the results of the additional monitoring shall be included in the next periodic report to MSD.

## PERMIT CONDITIONS

- 9.) Of the following permit conditions, only those marked with an "X" are applicable to the Permittee:
  - (x ) The Permittee's discharge shall conform to the wastewater flows and characteristics listed in Attachment "A". (Section 1503)
  - (x ) The Permittee shall perform monitoring and submit signed reports as described in Attachment "B". (Section 1503)
  - ( ) The Permittee shall comply with the pretreatment requirements and schedule in Attachment "C". (Sections 1503, 1520, 1521 and 1522)
- \* References are to the "Rules and Regulations Governing the Design, Construction, Maintenance, Operation, and Use of Sanitary and Combined Sewers in The Metropolitan Sewer District of Greater Cincinnati, Hamilton County, Ohio."

#### WASTEWATER FLOWS AND CHARACTERISTICS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

The following limitations and conditions apply to the Permittee's effluent wastewater flowing through the sampling locations defined in Attachment B until such time as this Attachment is modified or revoked:

- 1. The Permittee shall maintain the pH of its wastewater within the range of 6 to 10 standard units at all times.
- 2. The Permittee shall not discharge waste or wastewater of characteristics such that the aggregate concentration of organic substances in the vapor space exceeds 450 ppm (v/v) when a grab sample of the waste or wastewater is tested using the "Final Procedure Vapor Space Organics" as published by MSD. During any 90 consecutive calendar days the average of the maximum values for five consecutive monitoring days shall not exceed 300 ppm (v/v).

NOTE: For purposes of this Section 2. methane (CH<sub>4</sub>) is not considered an organic substance.

3. The concentrations of the pollutant shall not exceed the following values:

Pollutant						Column A	<u>Column B</u>		
Lead (Total)								6.0	9.0

NOTE: Where Column A = concentrations (mg/L) of composite samples collected over the daily period of operation in proportion to flow so as to produce a representative sample.

Where Column B = concentrations (mg/L) of samples collected over a time interval of not more than one minute so as to produce a grab sample.

4. The mass of pollutants in Permittee's effluent wastewater shall not exceed the following values:

## WASTEWATER FLOWS AND CHARACTERISTICS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

SAMPLING LOCATION 1. WEST		MASS BASED LIMITS				
	Sampling	Maximum for any	Maximum for monthly			
<u>Pollutant</u>	Technique	one day [lb/day]	average [lb/day]			
_						
Benzene	x	*1.7E-01	7.3E-02			
Carbon Tetrachloride	x	4.9E-01	1.8E-01			
Chlorobenzene	x	4.9E-01	1.8E-01			
1,2,4-Trichlorobenzene	0	1.0E+00	2.5E-01			
Hexachlorobenzene	0	1.0E+00	2.5E-01			
1,2-Dichloroethane	X	7.3E-01	2.3E-01			
1,1,1-Trichloroethane	x	7.5E-02	2.8E-02			
Hexachloroethane	0	1.0E+00	2.5E-01			
1,1-Dichloroethane	x	7.5E-02	2.8E-02			
1,1,2-Trichloroethane	x	1.6E-01	4.1E-02			
Chloroethane	x	3.8E-01	1.4E-01			
Chloroform	x	4.2E-01	1.4E-01			
1,2-Dichlorobenzene	x	1.0E+00	2.5E-01			
1,3-Dichlorobenzene	x	4.9E-01	1.8E-01			
1,4-Dichlorobenzene	x	4.9E-01	1.8E-01			
1,1-Dichloroethylene	X	7.7E-02	2.8E-02			
1,2-trans-Dichloroethylene	x	8.4E-02	3.2E-02			
1,2-Dichloropropane	x	1.0E+00	2.5E-01			
1,3-Dichloropropylene	x	1.0E+00	2.5E-01			
Ethylbenzene	x	4.9E-01	1.8E-01			
Methylene Chloride	x	2.2E-01	4.6E-02			
Methyl Chloride	x	3.8E-01	1.4E-01 0.14 Les			
Hexachlorobutadiene	0	4.9E-01	1.8E-01			
Nitrobenzene	0	8.2E+00	2.9E+00			
2-Nitrophenol	0	3.0E-01	8.3E-02			
4-Nitrophenol	0	7.4E-01	2.1E-01			
4,6-Dinitro-o-cresol	0	3.5E-01	1.0E-01			
Tetrachloroethylene	x	2.1E-01	6.6E-02			
Toluene	x	9.5E-02 Das	° 3.6E-02 →03%			
Trichloroethylene	x	8.8E-02	3.3E-02 .			
Vinyl Chloride	x	2.2E-01	1.2E-01			

o = 24 hour flow proportional composite

Refer to Item 3.A. of Attachment B for sampling techniques

\*NOTE:  $1.7E-01 = 1.7 \times 10^{-1}$  [see Fact Sheet]

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x = Grab

## WASTEWATER FLOWS AND CHARACTERISTICS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

SAMPLING LOCATION 2. SOUTH		MASS BASED LIMITS					
	Sampling	Maximum for any	Maximum for monthly average [lb/day]				
<u>Pollutant</u>	Technique	one day [lb/day]					
Benzene	x	*1.4E-02	5.9E-03				
Carbon Tetrachloride	x	3.9E-02	1.5E-02				
Chlorobenzene	x	3.9E-02	1.5E-02				
1,2,4-Trichlorobenzene	0	8.2E-02	2.0E-02				
Hexachlorobenzene	0	8.2E-02	2.0E-02				
1,2-Dichloroethane	x	5.9E-02	1.9E-02				
1,1,1-Trichloroethane	x	6.1E-03	2.3E-03				
Hexachloroethane	0	8.2E-02	2.0E-02				
1,1-Dichloroethane	x	6.1E-03	2.3E-03				
1,1,2-Trichloroethane	x	1.3E-02	3.3E-03				
Chloroethane	x	3.1E-02	1.1E-02				
Chloroform	x	3.4E-02	1.1E-02				
1,2-Dichlorobenzene	x	8.2E-02	2.0E-02				
1,3-Dichlorobenzene	x	3.9E-02	1.5E-02				
1,4-Dichlorobenzene	x	3.9E-02	1.5E-02				
1,1-Dichloroethylene	x	6.2E-03	2.3E-03				
1,2-trans-Dichloroethylene	X	6.8E-03	2.6E-03				
1,2-Dichloropropane	x	8.2E-02	2.0E-02				
1,3-Dichloropropylene	x	8.2E-02	2.0E-02				
Ethylbenzene	x	3.9E-02	1.5E-02				
Methylene Chloride	x	1.8E-02	3.7E-03				
Methyl Chloride	x	3.1E-02	1.1E-02 .011				
Hexachlorobutadiene	0	3.9E-02	1.5E-02				
Nitrobenzene	0	6.6E-01	2.3E-01				
2-Nitrophenol	0	2.4E-02	6.7E-03				
4-Nitrophenol	0	6.0E-02	1.7E-02				
4,6-Dinitro-o-cresol	0	2.9E-02	8.1E-03				
Tetrachloroethylene	x	1.7E-02	5.4E-03				
Toluene	x	7.7E-03 , ( ) ===	2.9E-03 .002?				
Trichloroethylene	x	7.1E-03	2.7E-03				
Vinyl Chloride	x	1.8E-02	1.0E-02				

o = 24 hour flow proportional composite

Refer to Item 3.A. of Attachment B for sampling techniques

\*NOTE:  $1.4E-02 = 1.4 \times 10^{-2}$  [see Fact Sheet]

- continued -

x = Grab

#### WASTEWATER FLOWS AND CHARACTERISTICS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

5. The Permittee shall not discharge waste or wastewater that contains pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.

### MONITORING AND REPORTING REQUIREMENTS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

The following provisions shall apply to the Permittee:

- 1. The Permittee shall monitor and continuously record the pH of its wastewater at the sampling locations defined in this Attachment. The Permittee shall retain these records so that on any day the Permittee will have on hand and available for inspection pH records for the previous 365 days.
- 2. The Permittee shall monitor at the frequency specified for each sampling location defined in this Attachment by collecting data representative of the quality and quantity of its wastewater effluent, and shall submit these data to MSD during the months of June and December. Each monitoring shall include:
  - A. The chemical identity, concentration and method of analysis of the regulated pollutant as listed in Item 3 Attachment A of this permit.
  - B. The chemical identities, concentrations, mass emission rates and methods of analysis of regulated pollutants as listed in Item 4 of Attachment A of this permit. Mass emission rates shall be calculated as in the sample calculation of the Fact Sheet except that flow rates and concentrations used shall be those obtained by actual measurements as described in this Attachment. LIST
  - C. Wastewater flow rates for each 24-hour sampling period from each sampling location described in this Attachment.
- 3. The Permittee shall use the following sampling and analytical techniques for each monthly monitoring specified in Item 2 of this Attachment.
  - A. Samples shall be taken on each of <u>four consecutive monitoring days</u> for metal and organic pollutants listed in Items 3 and 4 of Attachment A. The samples for the metal pollutant shall be taken using 24 hour flow proportional composite sampling technique. The samples for organic pollutants shall be taken using the indicated sampling technique (24 hour flow proportional composite or grab as listed in Attachment A). <u>NOTE</u>: Grab sampling technique shall consist of a minimum of four (4) discrete grab samples collected in each 24-hour sampling period (each properly collected and preserved), and combined in the laboratory immediately before analysis.
  - B. The metal pollutant Lead (Total) shall be analyzed using approved EPA Method Number 239.1 or 239.2. The organic pollutants in Item 4 of Attachment A shall be analyzed using the approved test procedures of the appropriate EPA Method Numbers 601-613, 624, 625, 1624 and 1625. Further information regarding approved sampling and test procedures may be found in Title 40 Code of Federal Regulations, Part 136 (40 CFR 136).

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## MONITORING AND REPORTING REQUIREMENTS

PERMITTEE: MORTON INTERNATIONAL, INC.

MSD PERMIT NO.: MIL-026

4. Permittees seeking renewal of a Wastewater Discharge Permit shall apply in writing at least 30 days before the expiration date of the current permit. The application for renewal shall state significant changes in the quantity and quality of the wastewater or shall certify that there are no such significant changes.

## SAMPLING LOCATIONS

Sampling Location 1.

West sampling manhole is located within the northwest corner of the company's premise, 35 feet south of Building No. 20 and upstream of the sump manhole.

Sampling from this location shall be performed quarterly. FEE-MAY AUG- NOV

Sampling Location 2.

South sampling manhole (#11-2) is located approximately 160 feet south of the main gate entrance and along the east side of West Street.

Sampling from this location shall be performed for each six month calendar period.

#### FACT SHEET

OCPSF PERMIT LIMITS: Industrial User: Morton International [MIL-026]

Sampling Location: South End-of-Pipe Outfall

OCPSF Regulated Process Wastewater Flowrate [Fi]: 12400 gpd
Unregulated Process Wastewater Flowrate [Fu]: 0 gpd
Dilute Wastewater Flowrate [Fd]: 4350 gpd
CWF Factor = [(Fi+Fu)/Fi]: 1.00

MASS BASED 40 CFR Part 414 PERMIT LIMITS Subpart G/H [PSES] Maximum Maximum Maximum Maximum for monthly for any for monthly for any average one day average one day [lb/day] [lb/day] [ug/1][ug/1]Pollutant \*1.4E-02 5.9E-03 134 57 Renzene 380 142 3.9E-02 1.5E-02 Carbon Tetrachloride 3.9E-02 1.5E-02 380 142 Chlorobenzene 2.0E-02 1,2,4-Trichlorobenzene 794 196 8.2E-02 8.2E-02 2.0E-02 794 196 Hexachlorobenzene 574 5.9E-02 1.9E-02 180 1,2-Dichloroethane 6.1E-03 2.3E-03 59 22 1,1,1-Trichloroethane 794 196 8,2E-02 2.0E-02 Hexachloroethane 59 22 6.1E-03 2.3E-03 1.1-Dichloroethane 1.3E-02 3.3E-03 127 32 1,1,2-Trichloroethane 295 3.1E-02 1.1E-02 Chloroethane 110 325 111 3.4E-02 1.1E-02 Chloroform 8.2E-02 2.0E-02 794 196 1,2-Dichlorobenzene 380 142 3.9E-02 1.5E-02 1,3-Dichlorobenzene 142 3.9E-02 1.5E-02 380 1,4-Dichlorobenzene 60 22 6.2E-03 2.3E-03 1,1-Dichloroethylene 66 25 6.8E-03 2.6E-03 1,2-trans-Dichloroethylene 794 1,2-Dichloropropane 196 8.2E-02 2.0E-02 1,3-Dichloropropylene 794 196 8.2E-02 2.0E-02 3.9E-02 1.5E-02 Ethylbenzene 380 142 Methylene Chloride 170 36 1.8E-02 3.7E-03 1.1E-02 295 3.1E-02 Methyl Chloride 110 Hexachlorobutadiene 380 142 3.9E-02 1.5E-02 Nitrobenzene 6402 2237 6.6E-01 2.3E-01 231 2.4E-02 6.7E-03 2-Nitrophenol 65 4-Nitrophenol 576 162 6.0E-02 1.7E-02 277 2.9E-02 4,6-Dinitro-o-cresol 78 8.1E-03 164 Tetrachloroethylene 52 1.7E-02 5.4E-03 74 Toluene 28 7.7E-03 2.9E-03 69 26 7.1E-03 Trichloroethylene 2.7E-03 Vinyl Chloride 172 97 1.8E-02 1.0E-02

EXAMPLE CALCULATION [Benzene - Maximum for any one day]:

.0077

\*NOTE:  $1.4E-02 = 1.4 \times 10^{-2}$ 

## FACT SHEET

OCPSF PERMIT LIMITS: Industrial User: Morton International [MIL-026]

Sampling Location: West End-of-Pipe Outfall

OCPSF Regulated Process Wastewater Flowrate [Fi]: 140900 gpd Unregulated Process Wastewater Flowrate [Fu]: 12300 gpd Dilute Wastewater Flowrate [Fd]: 52700 gpd

CWF Factor = [(Fi+Fu)/Fi]: 1.09

		Part 414 G/H [PSES]		S BASED T LIMITS
Pollutant	Maximum for any one day [ug/1]	Maximum for monthly average [ug/1]	Maximum for any one day [lb/day]	Maximum for monthly average [lb/day]
TOTTUCANC	<u> </u>			
Benzene Carbon Tetrachloride Chlorobenzene 1,2,4-Trichlorobenzene Hexachlorobenzene 1,2-Dichloroethane 1,1,1-Trichloroethane Hexachloroethane 1,1-Dichloroethane 1,1-Z-Trichloroethane Chloroethane	134 380 380 794 794 574 59 794 59 127 295	57 142 142 196 196 180 22 196 22 32	*1.7E-01 4.9E-01 4.9E-01 1.0E+00 1.0E+00 7.3E-01 7.5E-02 1.0E+00 7.5E-02 1.6E-01 3.8E-01	7.3E-02 1.8E-01 1.8E-01 2.5E-01 2.5E-01 2.3E-01 2.8E-02 2.5E-01 2.8E-02 4.1E-02 1.4E-01
Chloroform 1,2-Dichlorobenzene	325 794	111 196	4.2E-01 1.0E+00	1.4E-01 2.5E-01
1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethylene	380 380 60	142 142 22	4.9E-01 4.9E-01 7.7E-02	1.8E-01 1.8E-01 2.8E-02
1,2-trans-Dichloroethylene	66	25 196	8.4E-02	3.2E-02 2.5E-01
1,2-Dichloropropane 1,3-Dichloropropylene Ethylbenzene Methylene Chloride	794 794 380 170	196 142 36	1.0E+00 1.0E+00 4.9E-01 2.2E-01	2.5E-01 1.8E-01 4.6E-02
Methyl Chloride Hexachlorobutadiene	295 380	110 142	3.8E-01 4.9E-01	1.4E-01 1.8E-01
Nitrobenzene 2-Nitrophenol 4-Nitrophenol 4,6-Dinitro-o-cresol Tetrachloroethylene Toluene Trichloroethylene	6402 231 576 277 164 74 69	2237 65 162 78 52 28 26	8.2E+00 3.0E-01 7.4E-01 3.5E-01 2.1E-01 9.5E-02 8.8E-02	2.9E+00 8.3E-02 2.1E-01 1.0E-01 6.6E-02 3.6E-02036 3.3E-02
Vinyl Chloride	172	97	2.2E-01	1.2E-01

# EXAMPLE CALCULATION [Benzene - Maximum for any one day]:

140900 gal water	8.34	lb water	134 15	Benzene	1.09	= 1.7E-01	lh Dongono
day	g	al water	1.0E+09	lb water		]	day

\*NOTE:  $1.7E-01 = 1.7 \times 10^{-1}$